Additional FEMP Assistance and Information

SAVEnergy Action Plan

The SAVEnergy Program has been developed to assist Federal facility managers in identifying and implementing cost-effective energy and water efficiency projects, inclusive of improvements in operations and maintenance.

What does the SAVEnergy Program accomplish?

- SAVEnergy analyses are made available by FEMP to all Federal installations.
- SAVEnergy analyses examine energy, water, solar, and other renewable efficiency improvement opportunities.
- SAVEnergy analyses provide Federal installations an action plan that can lead to project implementation:
  - A prioritized list of retrofit projects and operations and maintenance actions
  - A plan suggesting funding mechanisms that best leverage limited Federal investment dollars
  - Recommendations of follow-up data collection (verification) efforts.
- The SAVEnergy Program can address many issues required in energy management by:
  - Characterizing current energy use
  - Identifying technologies for cost-effective retrofit
  - Reviewing funding alternatives and developing funding documentation
  - Assisting in developing follow-up monitoring strategies.
- A SAVEnergy analysis can:
  - Serve as a model for other sites
  - Identify actions needed to convince management to proceed with energy efficiency actions.
- SAVEnergy assists agencies and facilities that:
  - Have limited staffing available
  - Would like to examine water efficiency opportunities
  - Lack in-house project funds.

How does SAVEnergy work?

- Federal agencies may submit requests for SAVEnergy analyses at any time (see below). Analysis requests may be for system-specific or facility-wide energy and water systems.
- Facility requests are evaluated for FEMP funding based on the following factors:
  - Is there a facility energy champion?
  - Is there an ongoing utility demand-side management program?
  - Are electric rates comparatively high compared with natural gas rates?
  - Are there transferable project opportunities at the facility?
  - Is an energy service company interested in working/investing at the site?
  - Have site personnel attended FEMP training workshops?
- Once a request is approved, a team of individuals from Federal agencies, national laboratories, DOE support offices, universities, auditing and consulting firms, energy service companies, and utilities will be identified to perform the on-site analysis and develop a SAVEnergy Action Plan. If you would like to request a facility analysis and action plan, please contact appropriate FEMP Regional Energy Action Project staff.

If you are interested in obtaining more information on the SAVEnergy Program, please contact the FEMP Help Desk at 800-363-3732.

Software Analysis Tools

Each of the FEMP software modules addresses specific user needs, while together they represent an interactive set of tools. The Building Life-Cycle Costing (BLCC) software, developed by the National Institute of Standards and Technology, performs Federal life-cycle cost analyses using the method prescribed by 10 CFR 435 (Code of Federal Regulations), Subpart A. Application of this methodology is required to select new building systems as a part of new building and/or retrofit project designs. BLCC is also incorporated into other FEMP-developed software modules:

- A Simplified Energy Analysis Method (ASEAM) is used to model the thermal performance of new and existing buildings to identify cost-effective systems and/or component alternatives.
- The Facility Energy Decision System (FEDS) screens facility-wide energy consumption and identifies retrofit technologies. In addition to BLCC, FEDS also incorporates ASEAM, Lighting System Screening Tool (LSST), and Lighting Technology Screening Matrix (LTSM). (Available to Federal employees only.)
- Federal Lighting Energy eXpert (FLEX) is a lighting retrofit design tool developed as a part of the Federal Relighting Initiative.
- Federal Renewable Energy Screening Assistant (FRESA) is a facility screening tool that identifies potentially cost-effective renewable energy applications.
- LSST was developed as a part of the Federal Relighting Initiative. LSST is used to identify and prioritize lighting retrofit projects. (Available to Federal employees only.)
- LTSM was also developed as a part of the Federal Relighting Initiative and assists in identifying specific fluorescent, incandescent, and exit sign retrofit opportunities. (Available to Federal employees only.)
- WATERGY provides a quick screening tool to identify potential water saving opportunities and associated energy savings.

Software tools can be obtained by calling the FEMP Help Desk at 800-363-3732.

Utility Partnerships

While the pending deregulation of the utility industry has created a great deal of uncertainty in the public sector, it has also created the perfect environment for public-private partnerships between government agencies and utility companies. Currently, many utility companies are providing value-added services to retain important customers. By partnering with government agencies, utilities can guarantee agencies uninterrupted service for the length of the contract while increasing energy efficiency in the public sector.

FEMP believes that one of the best ways Federal agencies can reduce operating costs is by creating partnerships with their utilities. It is through these partnerships that agencies can best identify and implement energy efficiency, renewable energy, and water conservation projects. These partnerships also help to reduce the cost of government by identifying the most cost-effective financial and technical resources to complete projects.

Fostering successful partnerships among utilities, energy service companies, and Federal agencies is one of FEMP's highest priorities. In the spring of 1994, FEMP established the Federal Utility Partnerships Working Group to further develop a communications channel between Federal agencies and utilities. Since the first meeting, FEMP has received valuable input from utilities and agencies. At a meeting in March 1997, the working group discussed deregulation, the development of a Federal training course on deregulation, and distribution of a list of Federal needs in a competitive environment.

Specifically, the objectives of the working group are to:

- Enhance the partnership between Federal facilities and utilities;
- Identify how utilities and Federal agencies can work together to meet the goals of the Energy Policy Act of 1992 and Executive Order 12902 (superseded by Executive Order 13123);
- Develop a Federal-utility communication mechanism/infrastructure that transfers success stories, challenges, and lessons learned; and
- Adapt the Federal sector to the changes in the energy efficiency and utility industry.

As deregulation of the utility industry continues, the working group will develop guidelines for how the Federal government should best position itself in a deregulated environment, what information is needed to make decisions, and where that information can be obtained. FEMP believes that by working cooperatively, the Federal government and the utilities can best meet their respective energy efficiency goals. To receive information on FEMP utility partnerships call 800-363-3732.

For more information on the Federal Utility Partnerships Working Group and/or how to forge successful utility partnerships, contact Brad Gustafson of FEMP at 202-586-2204.

Energy Service Company Partnerships

The energy service company (ESCO) represents a myriad of opportunities when it comes to energy savings. FEMP is working to capitalize on these opportunities by developing partnerships with ESCOs under the title The FEMP Energy Services Industry Partnership.

In May 1995, FEMP announced publication of the ESPC regulation at the mid-year National Association of Energy Service Companies' (NAESCO) annual convention in San Francisco. At this convention, FEMP invited representatives from the ESCO industry to Washington, DC for a meeting to explore ways of streamlining the business of energy savings. In June 1995, a small group of individuals met to establish the agenda for a larger meeting that was held in August 1995. At the August meeting, representatives from FEMP and the ESCO met for a two-day discussion of energy savings. The main focus of these talks was the model solicitation.

In addition, FEMP is working to simplify the ESPC process by refining measurement and verification and by developing Super Energy Savings Performance Contracting (Super ESPC), and the Qualified List of Energy Service Companies. Every step FEMP takes toward a streamlined process in each of these areas brings it closer to a stronger working relationship with the ESCOs. To receive copies of FEMP ESPC documents, call 800-363-3732.

For more information on ESPC, please contact Tatiana Muessel of FEMP at 202-586-9230.

Measurement & Verification

Measurement and verification (M&V) is one of this year's cutting-edge issues. ESPC and utility incentives projects depend on proper M&V of promised energy savings. Without adequate M&V, there is no objective basis for determining whether agencies are realizing the level of energy savings that they have been guaranteed. Until recently, Federal energy managers, procurement officials, and private sector energy service providers had no uniform guidelines for measuring and verifying energy savings; M&V procedures had to be painstakingly negotiated on an individual project basis.

For this reason, FEMP supported the development of a collaborative effort to produce a consensus document. U.S. Department of Energy officials worked with a large group of technical and industry experts to develop the North American Energy Measurement and Verification Protocol (NEMVP). As the first application, FEMP issued the *Federal Measurement and Verification Guideline*. The new FEMP guideline speaks the "Federal" language and provides standard procedures for quantifying savings from the installation of energy conservation measures. Intended for use in ESPC and utility program projects, the guideline provides the methodology for establishing cost savings called for in the ESPC rule.

The objective of M&V is to verify savings to the satisfaction of all parties. The guideline was developed in parallel with the NEMVP, assuring consistency for companies doing business with both Federal agencies and private companies.

The NEMVP and this Federal application are based on three general approaches to assessing savings. The approaches, called Options A, B, and C, are designed to increase flexibility for both parties and cover the spectrum of project complexity. For many projects, savings may be verified with a minimum of measurement and at a minimum of cost. Other projects call for a more rigorous M&V approach. In general, the more rigorous the verification requirements, the more necessary and expensive the verification process will be. However, when applied, confidence in the project and the ability to achieve anticipated project results should increase. Therefore, the cost of money (based on reduced perceived risk) should go down.

Factors that affect measurement and verification costs include:

- Magnitude of savings
- Complexity of energy conservation measures
- The number of interactive energy conservation measures
- Risk allocation issues.

To obtain a copy of either the FEMP Federal Measurement and Verification Guideline or the North American Measurement and Verification Protocol, call the FEMP Help Desk at 800-363-3732.

Energy-Efficient Product Recommendations

The Federal Energy Management Program has produced fourteen *Product Energy Efficiency Recommendations* to assist Federal procurement officials and other purchasing decision makers in identifying products that meet or exceed the requirements of Executive Order 12902 (now superseded by Executive Order 13123). These requirements direct Federal agencies to purchase best-practice energy-efficient, renewable, and water-conserving products whenever they meet an agency's specific performance requirements and are cost effective. Best-practice products are products in the upper 25 percent of energy efficiency for all similar products, or products that are at least 10 percent more efficient than the minimum level that meets Federal standards.

The first set of fourteen *Product Energy Efficiency Recommendations* includes:

- Residential Appliances
  - Room Air Conditioners
  - Refrigerators
  - Dishwashers
- Residential Equipment
  - Central Air Conditioners
  - Furnaces
  - Electric Water Heaters
  - Gas Water Heaters
- Water-Saving Fixtures
  - Faucets
  - Showerheads
  - Toilets
  - Urinals
- Lighting
  - Exit Signs
- Commercial Appliances
  - Ice Cube Machines
- Commercial Equipment
  - Electric Chiller

The recommendations, as well as other information on streamlined procurement, are presented in a one-stop shopping guide, *Buying Energy Efficient Products*, available through FEMP's Help Desk at 800-363-3732 or on FEMP's Internet web site, www.eren.doe.gov/femp/procurement.html. The next set of nine product recommendations is being developed for motors, remote-site photovoltaics, compact fluorescent lamps, and office equipment, including computers, monitors, printers, copiers, fax machines, and multi-function machines. *Buying Energy Efficient Products* will ultimately contain recommendations for 50 to 60 products.

For more information on the Product Recommendations program, call Katie Kroehle at 202-586-4858.

Printed with a renewable-source ink on paper containing
at least 50% wastepaper, including 20% postconsumer waste.

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